



# NBS Monthly Bulletin

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#### **A**BBREVIATIONS

CPI Consumer Price Index

EA euro area

ECB European Central Bank
EC European Commission
EMEs emerging market economies
EMU Economic and Monetary Union
EONIA euro overnight index average
ESA 2010 European System of Accounts 2010

EU European Union

EUR euro

EURIBOR euro interbank offered rate

Eurostat statistical office of the European Union

FDI foreign direct investment GDP gross domestic product

GNDI gross national disposable income

GNI gross national income

HICP Harmonised Index of Consumer Prices

IMF International Monetary Fund
MFI monetary financial institutions

MF SR Ministry of Finance of the Slovak Republic

MMF money market fund

MTF NBS's Medium-Term Forecast (published on a quarterly basis)

NARKS National Association of Real Estate Offices of Slovakia

NBS Národná banka Slovenska NEER nominal effective exchange rate NFC non-financial corporation

NPISHs Non-profit institutions serving households

OECD Organisation for Economic Co-operation and Development

p.a. per annum p.p. percentage point

PMI Purchasing Managers' Index

PPI Producer Price Index
REER real effective exchange rate

SASS Slovenská asociácia správcovských spoločností – Slovak Association of Asset

Management Companies

SME small and medium-sized enterprise
SO SR Statistical Office of the Slovak Republic

ULC unit labour costs

ÚPSVR Ústredie práce, sociálnych vecí a rodiny – Central Office of Labour, Social Affairs and

Family

USD US dollar VAT value-added tax

#### Symbols used in the tables

- . Data are not yet available.
- Data do not exist / data are not applicable.
- (p) Preliminary data



### 1 Summary<sup>1</sup>

The euro area economy remains on a growth trajectory, with hard indicators suggesting that activity accelerated in the last quarter of 2016. Industrial production growth was relatively strong, and retail sales also increased. The labour market is picking up and inflation is accelerating, albeit owing mainly to energy prices. Leading indicators are even pointing to a further increase in GDP growth at the beginning of 2017.

The recovery in the wider euro area has also been reflected in the performance of the Slovak economy. Improvements in industrial production, sales and exports indicated the continuation of economic growth in late 2016, which consequently benefited the domestic labour market. Annual employment growth did not ease even towards the year-end, remaining stable at 2.7%, with the services sector<sup>2</sup> making the largest contribution. The unemployment rate continued to fall in December 2016 (down to 8.76%). According to labour office records, the number of job seekers decreased more in 2016 (by 58,000) than in any previous year in the post-crisis period. The impact of that decline is accentuated by historically high employment levels that Slovakia is now recording. The labour market recovery may therefore be expected to support demand-pull inflation in the years

ahead. Wage growth returned to previous higher levels, driven up by wages in the business activities sector. Average wage growth at the end of 2016 would have been higher, but for slower wage growth in the IT and construction sectors, caused by the base effect of the absorption of EU funds a year earlier.

The annual inflation rate was positive in December (0.2%) for the first month in almost three years. Inflation was boosted by the current increase in energy commodity prices and their pass-through to automotive fuel prices. Furthermore, food prices made a less negative contribution to the headline rate. Since demand-pull inflation had still not picked up significantly, prices of non-energy industrial goods and of services were lower than expected. This year, however, in addition to rising food prices, there may be demand pressures resulting from wage growth. Regulated energy prices represent a risk to the inflation outlook for this year, since data on the impact of new prices decisions on consumer prices was not available by the cut-off date for this Bulletin.

All the latest figures have been included in the update of the December 2016 Medium-Term Forecast (MTF-2016Q4U).

All month-on-month and quarter-on-quarter changes mentioned in the text have been seasonally adjusted using NBS internal models.
 For details, see Chart 9.

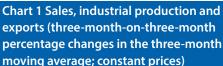


## **2** THE REAL ECONOMY

## 2.1 'HARD' INDICATORS OF ECONOMIC ACTIVITY

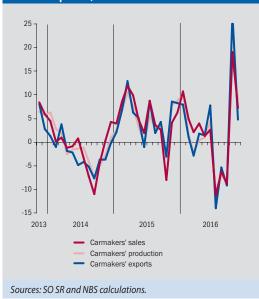
Economic activity indicators were favourable in November 2016 and further helped make up for the weaker results of the previous quarter<sup>3</sup>. The index averages of industrial production, sales, and exports were higher for October and November than for the third quarter, by 4.6%, 1.6% and 4.8% respectively. This growth was largely driven by the transport equipment manufacturing sector, which in the previous quarter had been notably more subdued.

Industrial production growth was supported by the metal processing industry, which performed particularly strongly in November. Industrial production for the fourth quarter as a whole is expected to have increased, quarter on quarter, and therefore should contribute positively to overall GDP growth for the period. Furthermore, sentiment in industry picked up markedly in December 2016, based largely on expectations for the months ahead. This suggests that the upward trend in industry may continue in early 2017.









Manufacturing industries accounted for most of overall sales growth, with wholesale trade and retail trade also making positive contributions. The pre-Christmas period was probably already a factor in November's sales, given the sharp rise in sales turnover of IT products, and it also affected the composition of exports. There was an acceleration in electronics exports from Slovakia, which supply a considerable part of the European market.

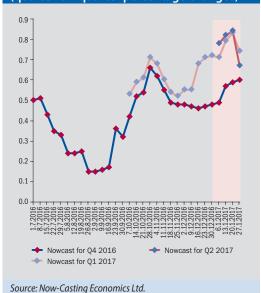
#### 2.2 'SOFT' LEADING INDICATORS

The European Commission's **Economic Sentiment Indicator** (ESI) for the euro area increased appreciably in December, as did the ESI for Germany. In Germany, the **Ifo Business Climate Index** was lower in January than in December, but the **ZEW economic sentiment index** increased in January. The **Purchasing Managers' Index** (PMI) for the euro area was broadly unchanged in January, while the PMI for Germany fell marginally but remains at a high level. Leading indicators for the euro area and Germany are sending favourable signals, implying that economic growth will remain solid at the beginning of 2017.

3 The decline from October to November in three-month-on-three-month terms (as shown in Charts 1 and 2) is simply a technical result of the shift in the comparison basis. The three-month-on-three-month growth rates peaked for the period to end-October, as they were still affected by the impact of weak results in July (due to factory holiday shutdowns). In November, however, the figures were closer to reality, and continued to show favourable growth.



# Chart 3 GDP growth estimate for the euro area in Q4 2016, Q1 2017 and Q2 2017 (quarter-on-quarter percentage changes)



# Chart 5 Economic sentiment indicators for Germany



Sources: European Commission, Ifo Institute and ZEW Centre. Note: ESI (long-run average = 100); Ifo index (2005 = 100); ZEW (balance of responses).

# Chart 4 GDP growth estimate for Germany in Q4 2016, Q1 2017 and Q2 2017 (quarter-on-quarter percentage changes)

Note: The highlighted area denotes developments since the

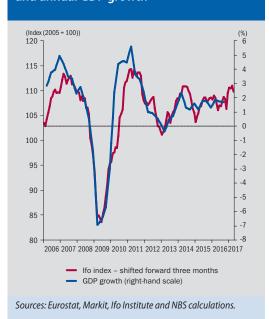
previous Monthly Bulletin.



Note: The highlighted area denotes developments since the

previous Monthly Bulletin.

# Chart 6 Germany – Ifo index (2005 = 100) and annual GDP growth





## **3** THE LABOUR MARKET

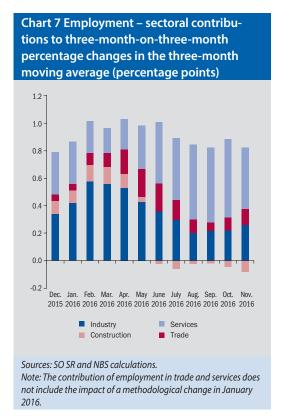
Employment across the sectors under review increased in November by 2.7% year on year (and 0.3% month on month), thus maintaining its relatively strong growth trend of the second half of the year. The services sector accounted for most of the employment growth thanks to its quite broad range of expanding segments. Its job growth was related to increasing purchasing power, as well as to the expansion of multinational firms' branch activities in Slovakia. a growing business sector and, to a lesser extent, increased tourism. The principal industrial sectors also continued to record stable job growth. In construction, however, despite an improvement in sentiment, the failure to make up for the drop in EU-funded investment is having an impact on employment in the sector.

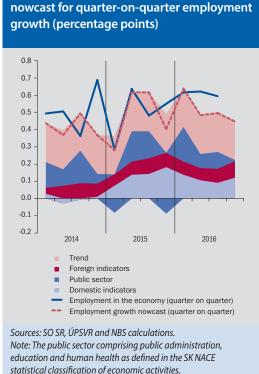
Employment growth is being mirrored by a downward trend in the number of regis-

tered unemployed, which in December fell by around 4,800 month on month<sup>4</sup>. The number of unemployed fell throughout the fourth quarter and also over the whole year. The drop in the total number of registered unemployed between December 2015 and December 2016 was 58,000, which is similar to the decreases observed in the pre-crisis years (2005 to 2007) and the highest recorded since the crisis. Substantial job creation and a contracting working-age population are continuing to put downward pressure on the number of unemployed and the unemployment rate.

The latest monthly indicators for the labour market suggest that the favourable employment trend will continue in the fourth quarter. These figures have been incorporated into the short-term employment projections given in the update of NBS's December 2016 forecast (MTF-2016Q4U).

**Chart 8 Indicator contributions to the** 

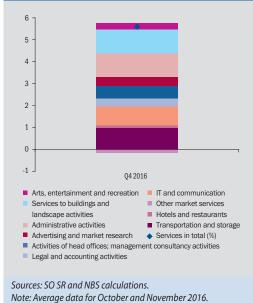




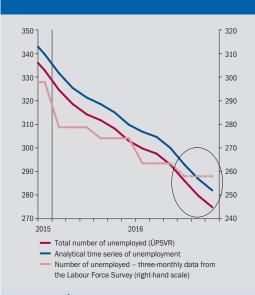
4 In seasonally-unadjusted terms, the registered unemployment rate decreased month on month by 0.02 percentage point, to 8.76%, and the unemployment rate based on the total number of job seekers fell by 0.08 percentage point, to 10.16%.





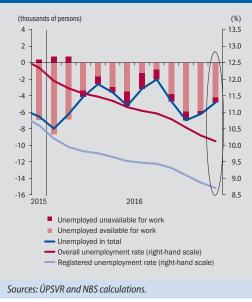


# Chart 11 Number of unemployed (thousands of persons)



Sources: SO SR, ÚPSVR and NBS calculations. Note: The Labour Force Survey unemployment figure for Q4 2016 is the MTF-2016Q4U projection. The analytical time series of unemployment is based on ÚPSVR figures and is defined in the MTF-2013Q3 forecast.

# Chart 10 Unemployment (percentages; thousands of persons)



Annual wage growth was higher in November (4.1%) than in October (2.3%). Wage growth was particularly strong in the business activities sector, at almost 7%. The competition for labour that is being seen between retail chains may in time appear to some extent in other sectors, too. Wage growth also accelerated in industry. In services, on the other hand, wage growth slowed, due partly to a year-on-year decline in activity in the IT sector (related to the fading impact of EU-funded investments). Another cause of the slowdown may be the composition effect in other market service sectors (an increase in new hires causing a slight drop in the average wage). Further dampening wage growth in services was the situation in the real estate activities sector, where wage growth slowed in November owing to the base effect of a significant one-off increase in wages a year earlier. Therefore some of the slowdown in wage growth in services may be only temporary.





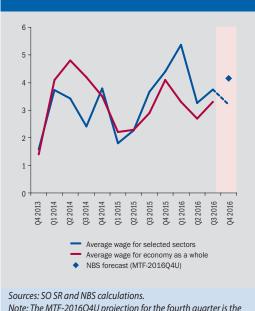
It may be assumed that the continuing economic growth and related impetus to attract and keep staff will continue to support wage growth. In December, wage growth may be further buoyed by efforts to bring forward a proportion of wage payments from January, in response to the fact that social contributions payable for higher earners are to be increased from 2017.

But even though wage growth may accelerate in December (due also to one-off factors) and teachers' salaries have been increased, the weaker wage figures in October are expected to ensure that wage growth for the fourth quarter is close to the 4% level projected in the MTF-2016Q4U forecast.





# Chart 13 Wage trends in the economy (annual percentage changes)



Note: The MTF-2016Q4U projection for the fourth quarter is the average wage for the economy as a whole. The average wage for selected sectors in the fourth quarter is the average for October and November 2016.



## 4 PRICES

As expected, annual HICP inflation in Slovakia turned positive in December for the first time in 35 months. The headline rate increased to 0.2%, from -0.2% in November. The month-on-month inflation rate was 0.1%, reflecting increases in prices of automotive fuel and services.

Price trends in December remained in line with projections, with the annual headline rate turn-

ing positive after almost three years in negative territory. The increase in inflation was supported by food prices, whose year-on-year rate of decline moderated, as projected, owing to a base effect from the previous year.

Automotive fuel prices accelerated in response to increases in prices of crude oil and oil derivatives towards the end of the year. On the basis of

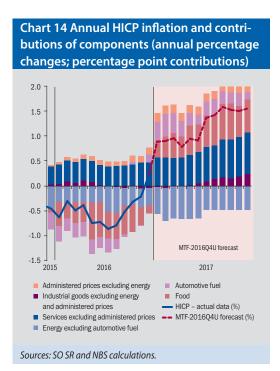




Table 1 HICP components – comparison of projected and actual rates of change (annual percentage changes; percentage point contributions)											
			Non-energy industrial goods	Energy	Food	Services	HICP	Net inflation excluding fuel			
SS		November 2016 – actual figure	0.1	-2.5	-1.6	1.6	-0.2	0.8			
ange	Α	December 2016 – forecast	0.5	-1.9	-0.7	1.7	0.2	1.1			
rchi	В	December 2016 – actual figure	0.1	-1.3	-0.6	1.7	0.2	0.8			
Year-on-year changes	B-A	December – actual figure minus forecast	-0.3	0.6	0.1	0.0	0.01	-0.2			
Year-	(B-A) * weight	Contribution to overall forecast error <sup>1</sup>	-0.10	0.09	0.03	-0.01	0.01	-0.12			
Sources: SO SR and NBS calculations. 1) Projections taken from NBS's December 2016 Medium-Term Forecast (MTF-2016Q4).											



technical assumptions, petrol/diesel inflation is expected to increase further in January 2017 and to peak in February, before slowing thereafter.

Annual services inflation remained unchanged in December, at 1.8%. The demand pressures generated by the strong labour market are expected to have a gradual upward impact on services prices. The year-on-year rate of change in industrial goods prices is projected to rebound, particularly in the second half of the year when these prices should reflect the slightly lagged impact of increases in inflation imported from both euro area and non-euro area countries.

Domestic demand-pull inflation is not as yet showing any signs of a significant trend shift. Going forward, however, it is expected to be pushed up by the effects of labour market developments and imported inflation.

Having regard to the December figures, the average inflation rate for 2017 is still projected to be higher than 1%. The headline rate for the first quarter could exceed 0.8%. The main risk to the



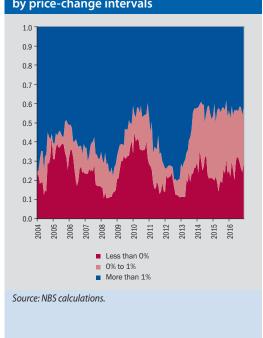


inflation outlook is uncertainty about the movement of regulated energy prices.

Chart 16 Demand-pull inflation (annual percentage changes; seasonally adjusted)

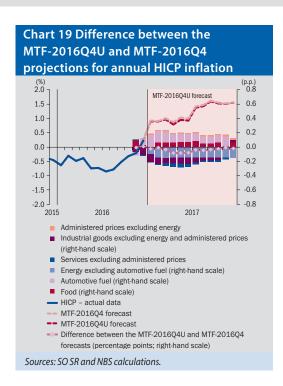


Chart 18 HICP core inflation broken down by price-change intervals





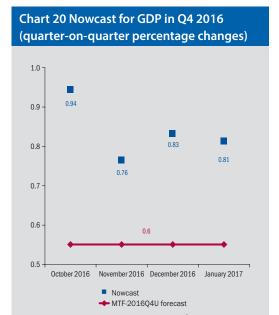
#### CHAPTER 4





## **5** INDICATIVE IMPACT ON THE FORECAST

Nowcast movements and all the most recent monthly figures have been incorporated into the update of NBS's December 2016 Medium-Term Forecast (MTF-2016Q4U).



Sources: SO SR and NBS calculations.

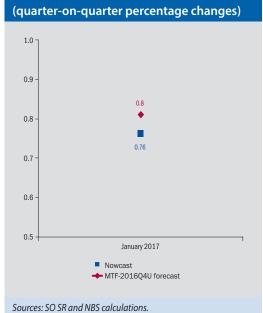


Chart 21 Nowcast for GDP in Q1 2017

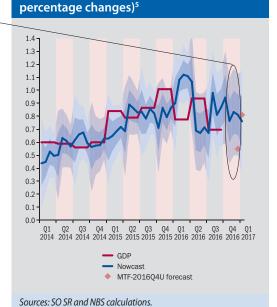


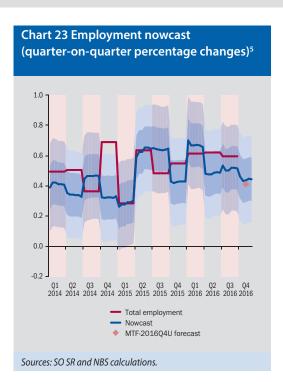
Chart 22 GDP nowcast (quarter-on-quarter

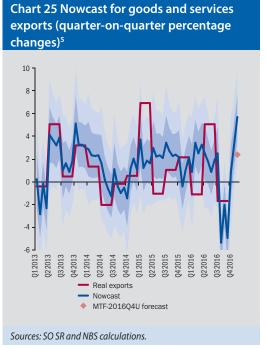
Note: The nowcast of GDP excludes qualitative impacts and one-off effects (e.g. EU funds). If projections of a slight slowdown in Slovakia's economic growth in late 2016 materialise, the seasonal adjustment procedure should have a downward impact on the annual growth rate for the first, second and third quarters, and an upward impact on the rate for the fourth quarter. The end result should therefore be that the growth rate for the fourth quarter is close to the nowcast.

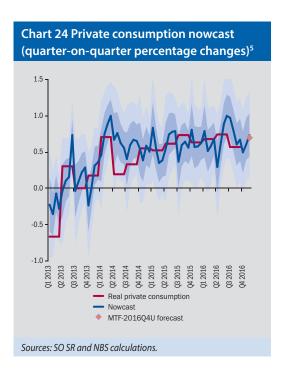
5 The band around the point estimate denotes +/- 1 and 2 times the root mean square error. Nowcasts are calculated using OLS time series models based on selected sets of monthly indicators (for employment, a factor model is used). Nowcasts provide a current estimate of future developments using available monthly figures from the current quarter, their future values forecast with ARIMA models, and their lagged values. The individual model projections are independent of each other and therefore a forecasting error in a past quarter cannot affect current projections. Further details are available in the commentaries on the GDP nowcasts, private consumption nowcasts, export nowcasts and employment nowcasts.



#### CHAPTER 5









## Overview of main macroeconomic indicators for Slovakia

#### Table 2 Selected economic and monetary indicators for Slovakia

(annual percentage changes, unless otherwise indicated)

	Gross domestic product	HICP	Industrial producer prices	Employ- ment ESA 2010	Unem- ployment rate	Industrial produc- tion index	Total sales of sec- tors <sup>1)</sup>	Economic Sentiment Indicator (long-term average=100)	M3 (for analyti- cal use) <sup>2)</sup>	Loans to non-fi- nancial corpora- tions	Loans to house- holds	State budget balance (EUR mil.)	General govern- ment balance (% of GDP)	General govern- ment gross debt (% of GDP)	Current account (% of GDP)	Balance of trade (% of GDP)	USD/EUR exchange rate (average for the period)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2009	-5.4	0.9	-2.6	-2.0	12.1	-15.5	-16.4	77.3	-2.8	-3.3	11.0	-2,791.3	-7.8	36.3	-3.4	0.4	1.3948
2010	5.0	0.7	-2.7	-1.5	14.4	8.2	7.9	98.7	7.8	1.6	12.5	-4,436.1	-7.5	41.2	-4.7	-0.1	1.3257
2011	2.8	4.1	2.7	1.8	13.6	5.2	6.2	98.8	2.9	7.6	11.1	-3,275.7	-4.3	43.7	-5.0	-0.1	1.3920
2012	1.7	3.7	3.9	0.1	14.0	8.0	4.5	94.0	8.8	-2.3	10.3	-3,810.7	-4.3	52.2	0.9	3.4	1.2848
2013	1.5	1.5	-0.1	-0.8	14.2	3.9	1.8	90.4	6.4	1.7	10.2	-2,023.3	-2.7	54.7	1.8	4.1	1.3281
2014	2.6	-0.1	-3.5	1.4	13.2	8.6	2.6	100.4	2.5	1.2	13.1	-2,923.4	-2.7	53.6	1.2	3.8	1.3285
2015	3.8	-0.3	-4.2	2.0	11.5	7.0	7.4	99.7	11.5	6.8	13.0	-1,932.6	-2.7	52.5	0.2	2.7	1.1095
2016		-0.5						101.6				-980.3					1.1069
2016 Q1	3.4	-0.5	-5.3	2.2	10.4	2.3	5.3	102.6	10.1	3.1	12.8	-	-2.2	51.8	-0.5	3.4	1.1020
2016 Q2	3.8	-0.6	-5.2	2.3	9.6	6.2	5.1	98.7	9.7	0.7	13.4	-	-1.9	52.9	0.7	4.2	1.1292
2016 Q3	3.0	-0.7	-4.2	2.4	9.5	1.9	2.3	102.4	9.3	3.8	12.9	-	-0.7	52.7	-1.1	2.3	1.1166
2016 Q4		-0.1						102.6				-					1.0789
2016 Jan.	-	-0.6	-5.2	-	10.4	1.9	8.3	102.5	11.3	4.4	12.9	8.6	-	-	-	-	1.0860
2016 Feb.	-	-0.3	-4.7	-	10.1	7.1	4.8	102.6	10.5	2.8	12.6	-842.7	-	-	-	-	1.1093
2016 Mar.	-	-0.5	-5.9	-	9.9	-1.8	2.7	102.8	10.1	3.1	12.8	-44.8	-	-	-	-	1.1100
2016 Apr.	-	-0.4	-5.6	-	9.6	7.4	4.9	99.6	10.9	3.3	12.9	232.8	-	-	-	-	1.1339
2016 May	-	-0.7	-5.6	-	9.5	9.2	4.5	98.0	10.8	1.5	13.3	-465.4	-	-	-	-	1.1311
2016 June	-	-0.7	-4.5	-	9.5	2.4	5.9	98.6	9.7	0.7	13.4	375.1	-	-	-	-	1.1229
2016 July	-	-0.9	-4.6	-	9.4	-14.1	-4.4	103.9	8.9	4.6	13.7	112.2	-	-	-	-	1.1069
2016 Aug.	-	-0.8	-4.8	-	9.4	17.3	9.5	99.9	9.0	4.7	13.0	13.1	-	-	-	-	1.1212
2016 Sep.	-	-0.5	-3.2	-	9.4	4.1	2.3	103.4	9.3	3.8	12.9	-33.2	-	-	-	-	1.1212
2016 Oct.	-	-0.3	-2.8	-	9.1	3.3	3.4	102.8	8.7	4.7	12.9	223.7	-	-	-	-	1.1026
2016 Nov.	-	-0.2	-2.6	-	8.8	2.4	3.2	101.3	8.1	3.0	13.0	-201.6	-	-	-	-	1.0799
2016 Dec.	-	0.2		-	8.8			103.8				-358.1	-	-	-	-	1.0543

 $Sources: Statistical\ Office\ of\ the\ Slovak\ Republic, MF\ SR, the\ European\ Commission\ and\ NBS.$ 

More detailed time series for selected macroeconomic indicators http://www.nbs.sk/\_img/Documents/\_MonthlyBulletin/2017/StatisticsMB0117.xls

<sup>1)</sup> Constant prices (seasonally adjusted).

<sup>2)</sup> Currency in circulation in M3 refers to money held by the public (according to methodology in place prior to 2008).